TEXAS Department of State Health Services

Trichloroethene (TCE) Fact Sheet

What is trichloroethene?

Trichloroethene, or TCE, is a colorless solvent with a slightly sweet odor. TCE is used primarily in industrial processes to remove grease from metal parts. Some household and consumer products – such as typewriter correction fluid, paint removers, adhesives, and spot removers also contain TCE. Because of the extent of its use, it is one of the more common man-made chemicals found in the environment.

Because TCE evaporates quickly, it is not usually present in surface soils or in open water. But TCE can migrate down through the soil and into groundwater where it can contaminate private and public drinking water wells.

What happens to trichloroethene when it enters the environment?

- TCE dissolves a little in water, but it can remain in ground water for a long time.
- TCE quickly evaporates from surface water, so it is commonly found as a vapor in the air.
- TCE does not build up significantly in plants and animals.

How might I be exposed to trichloroethene?

- TCE in the water will tend to evaporate during such activities as bathing or doing dishes. As the TCE evaporates into the air, it can be inhaled.
- Drinking, swimming, or showering in water that has been contaminated with TCE.
- Contact with skin or breathing contaminated air while manufacturing TCE or using it at work.

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How can trichloroethene affect my health?

People may experience headaches, drowsiness and eye, nose, skin irritation, or loss of consciousness from exposure to high levels of TCE. Behavior changes have been observed in people exposed to TCE in industrial accidents or intentional exposures.

Long-term exposure to high levels of TCE in drinking water can damage the liver, kidney, immune system, and the nervous system. TCE may also harm a developing fetus if the mother consumes water containing high levels of TCE. Some studies suggest that exposure to low levels of TCE over many years may also be linked to an increased risk of liver, kidney, or lung cancer.

Is there a medical test to show whether I've been exposed to trichloroethene?

- If you have recently been exposed to TCE, it can be detected in your breath, blood, or urine.
- Exposure to large amounts are assessed through blood and urine tests. However, this test is not available at most doctors' offices and can only be done at special laboratories that have the right equipment.
- Because exposure to other chemicals can produce the same breakdown products in urine and blood as those for TCE, the tests for breakdown products cannot determine if you have been exposed to TCE or the other chemical

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